

ABOUT EUREKA MATH

Created by the nonprofit Great Minds, *Eureka Math* helps teachers deliver unparalleled math instruction that provides students with a deep understanding of and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students’ mastery of math.

Teachers and students using *Eureka Math* find the trademark “Aha!” moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

ALIGNED

Eureka Math is the only curriculum found by [EdReports.org](https://www.edreports.org) to align fully with the Common Core State Standards for Mathematics for all grades, Kindergarten through Grade 8. Great Minds offers detailed analyses that demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at [greatminds.org/state-studies](https://www.greatminds.org/state-studies).

DATA

Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at [greatminds.org/data](https://www.greatminds.org/data).

FULL SUITE OF RESOURCES

As a nonprofit, Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at [greatminds.org/resources](https://www.greatminds.org/resources).

The teacher–writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:





- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources

Florida Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards in Mathematics Correlation to *Eureka Math*[®]

GEOMETRY MATHEMATICS

The majority of the Geometry Florida B.E.S.T. Mathematics Standards are fully covered by the Geometry *Eureka Math* curriculum. The areas where the Geometry Mathematics Florida Standards and Geometry *Eureka Math* do not align will require the use of *Eureka Math* content from other courses. A detailed analysis of alignment is provided in the table below.

INDICATORS

-  **GREEN** indicates the Florida standard is addressed in *Eureka Math*.
-  **YELLOW** indicates the Florida standard may not be completely addressed in *Eureka Math*.
-  **RED** indicates the Florida standard is not addressed in *Eureka Math*.
-  **BLUE** indicates there is a discrepancy between the grade level at which this standard is addressed in Florida and in *Eureka Math*.

Domain

Standards for Mathematical Content

Aligned Components of *Eureka Math*

<p>Geometric Reasoning 9–12</p>	<p>Standard: MA.912.GR.1 Prove and apply geometric theorems to solve problems.</p>	
	<p>MA.912.GR.1.1</p> <p>Prove relationships and theorems about lines and angles. Solve mathematical and real-world problems involving postulates, relationships and theorems of lines and angles.</p>	<p>Geometry M1 Lesson 6: Solve for Unknown Angles—Angles and Lines at a Point</p> <p>Geometry M1 Lesson 7: Solve for Unknown Angles—Transversals</p> <p>Geometry M1 Lesson 8: Solve for Unknown Angles—Angles in a Triangle</p> <p>Geometry M2 Lesson 18: Similarity and the Angle Bisector Theorem</p> <p>Geometry M2 Lesson 24: Prove the Pythagorean Theorem Using Similarity</p>

Domain	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<p>MA.912.GR.1.2</p> <p>Prove triangle congruence or similarity using Side-Side-Side, Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, Angle-Angle and Hypotenuse-Leg.</p>	<p>Geometry M1 Lesson 9: Unknown Angle Proofs—Writing Proofs</p> <p>Geometry M1 Lesson 10: Unknown Angle Proofs—Proofs with Constructions</p> <p>Geometry M1 Lesson 11: Unknown Angle Proofs—Proofs of Known Facts</p> <p>Geometry M2 Lesson 15: The Angle-Angle Criterion for Two Triangles to Be Similar</p> <p>Geometry M2 Lesson 16: Between-Figure and Within-Figure Ratios</p> <p>Geometry M2 Lesson 17: The Side-Angle-Side and Side-Side-Side Criteria for Two Triangles to Be Similar</p>

Domain	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<p>MA.912.GR.1.3</p> <p>Prove relationships and theorems about triangles. Solve mathematical and real-world problems involving postulates, relationships and theorems of triangles.</p>	<p>Geometry M1 Topic E: Proving Properties of Geometric Figures (Triangles)</p> <p>Geometry M1 Lesson 29: Special Lines in Triangles</p> <p>Geometry M1 Lesson 30: Special Lines in Triangles</p> <p>Geometry M2 Lesson 15: The Angle-Angle Criterion for Two Triangles to Be Similar</p> <p>Geometry M2 Lesson 16: Between-Figure and Within-Figure Ratios</p> <p>Geometry M2 Lesson 17: The Side-Angle-Side and Side-Side-Side Criteria for Two Triangles to Be Similar</p> <p>Geometry M2 Lesson 18: Similarity and the Angle Bisector Theorem</p> <p>Geometry M2 Lesson 21: Special Relationships Within Right Triangles—Dividing into Two Similar Sub-Triangles</p> <p>Geometry M2 Lesson 24: Prove the Pythagorean Theorem Using Similarity</p>
	<p>MA.912.GR.1.4</p> <p>Prove relationships and theorems about parallelograms. Solve mathematical and real-world problems involving postulates, relationships and theorems of parallelograms.</p>	<p>Geometry M1 Topic E: Proving Properties of Geometric Figures (Parallelograms)</p> <p>Geometry M1 Lesson 28: Properties of Parallelograms</p>

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	<p>MA.912.GR.1.5</p> <p>Prove relationships and theorems about trapezoids. Solve mathematical and real-world problems involving postulates, relationships and theorems of trapezoids.</p>	None
	<p>MA.912.GR.1.6</p> <p>Solve mathematical and real-world problems involving congruence or similarity in two-dimensional figures.</p>	<p>Geometry M1 Lesson 20: Applications of Congruence in Terms of Rigid Motions</p> <p>Geometry M1 Topic D: Congruence</p>
	<p>Standard: MA.912.GR.2 Apply properties of transformations to describe congruence or similarity.</p>	
	<p>MA.912.GR.2.1</p> <p>Given a preimage and image, describe the transformation and represent the transformation algebraically using coordinates.</p>	<p>Geometry M1 Lesson 12: Transformations—The Next Level</p> <p>Geometry M1 Lesson 13: Rotations</p> <p>Geometry M1 Lesson 14: Reflections</p> <p>Geometry M1 Lesson 15: Rotations, Reflections and Symmetry</p> <p>Geometry M1 Lesson 16: Translations</p>

Domain	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<p>MA.912.GR.2.2</p> <p>Identify transformations that do or do not preserve distance.</p>	<p>Geometry M1 Lesson 12: Transformations—The Next Level</p> <p>Geometry M1 Lesson 13: Rotations</p> <p>Geometry M1 Lesson 14: Reflections</p> <p>Geometry M1 Lesson 15: Rotations, Reflections and Symmetry</p> <p>Geometry M1 Lesson 16: Translations</p> <p>Geometry M1 Lesson 21: Correspondence and Transformations</p>
	<p>MA.912.GR.2.3</p> <p>Specify a sequence of transformations that will map a given figure onto itself or onto another congruent or similar figure.</p>	<p>Geometry M1 Lesson 19: Construct and Apply a Sequence of Rigid Motions</p> <p>Geometry M1 Lesson 20: Applications of Congruence in Terms of Rigid Motions</p> <p>Geometry M1 Lesson 21: Correspondence and Transformations</p>
	<p>MA.912.GR.2.4</p> <p>Given a geometric figure and a sequence of transformations, draw the transformed figure on a coordinate plane.</p>	<p>Geometry M1 Lesson 19: Construct and Apply a Sequence of Rigid Motions</p> <p>Geometry M1 Lesson 20: Applications of Congruence in Terms of Rigid Motions</p> <p>Geometry M1 Lesson 21: Correspondence and Transformations</p>

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	<p>MA.912.GR.2.5</p> <p>Apply rigid transformations to map one figure onto another to justify that the two figures are congruent.</p>	<p>Geometry M1 Lesson 19: Construct and Apply a Sequence of Rigid Motions</p> <p>Geometry M1 Lesson 20: Applications of Congruence in Terms of Rigid Motions</p> <p>Geometry M1 Lesson 21: Correspondence and Transformations</p>
	<p>MA.912.GR.2.6</p> <p>Justify the criteria for triangle congruence using the definition of congruence in terms of rigid transformations.</p>	<p>Geometry M1 Topic D: Congruence</p>
	<p>MA.912.GR.2.7</p> <p>Apply an appropriate transformation to map one figure onto another to justify that the two figures are similar.</p>	<p>Geometry M1 Lesson 20: Applications of Congruence in Terms of Rigid Motions</p> <p>Geometry M1 Lesson 21: Correspondence and Transformations</p>
	<p>MA.912.GR.2.8</p> <p>Justify the criteria for triangle similarity using the definition of similarity in terms of non-rigid transformations.</p>	<p>Geometry M1 Topic D: Congruence</p>

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	<p>Standard: MA.912.GR.3 Use coordinate geometry to solve problems or prove relationships.</p>	
<p>MA.912.GR.3.1</p> <p>Given a mathematical or real-world context, use coordinate geometry to classify or justify definitions, properties and theorems involving circles, triangles or quadrilaterals.</p>		<p>Geometry M4 Lesson 13: Analytic Proofs of Theorems Previously Proved by Synthetic Means</p>
<p>MA.912.GR.3.2</p> <p>Solve geometric problems involving circles, triangles and quadrilaterals on the coordinate plane.</p>		<p>Geometry M4 Topic C: Perimeters and Areas of Polygonal Regions in the Cartesian Plane</p>
<p>MA.912.GR.3.3</p> <p>Solve mathematical and real-world problems on the coordinate plane that involve finding the coordinates of a point on a line segment, including the midpoint.</p>		<p>Geometry M4 Lesson 7: Equations for Lines Using Normal Segments</p> <p>Geometry M4 Lesson 12: Dividing Segments Proportionately</p>
<p>MA.912.GR.3.4</p> <p>Solve mathematical and real-world problems on the coordinate plane involving perimeter or area of polygons.</p>		<p>Geometry M4 Topic C: Perimeters and Areas of Polygonal Regions in the Cartesian Plane</p>

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	Standard: MA.912.GR.4 Use geometric measurement and dimensions to solve problems.	
	<p>MA.912.GR.4.1</p> <p>Identify the shapes of two-dimensional cross-sections of three-dimensional figures.</p>	<p>G7 M6 Lesson 16: Slicing a Right Rectangular Prism with a Plane</p> <p>G7 M6 Lesson 17: Slicing a Right Rectangular Pyramid with a Plane</p> <p>G7 M6 Lesson 18: Slicing on an Angle</p> <p>G7 M6 Lesson 19: Understanding Three-Dimensional Figures</p> <p>Geometry M3 Lesson 6: General Prisms and Cylinders and Their Cross-Sections</p> <p>Geometry M3 Lesson 7: General Pyramids and Cones and Their Cross-Sections</p>
	<p>MA.912.GR.4.2</p> <p>Identify three-dimensional objects generated by rotations of two-dimensional figures.</p>	<p>Geometry M3 Lesson 6: General Prisms and Cylinders and Their Cross-Sections</p> <p>Geometry M3 Lesson 7: General Pyramids and Cones and Their Cross-Sections</p>
	<p>MA.912.GR.4.3</p> <p>Determine how changes in dimensions affect the area of two-dimensional figures and the surface area or volume of three-dimensional figures.</p>	<p>Geometry M3 Lesson 3: The Scaling Principle for Area</p> <p>Geometry M3 Lesson 9: Scaling Principle for Volume</p>

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	<p>MA.912.GR.4.4</p> <p>Solve mathematical and real-world problems involving the area of two-dimensional figures.</p>	<p>Geometry M3 Topic A: Area</p>
	<p>MA.912.GR.4.5</p> <p>Solve mathematical and real-world problems involving the volume of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.</p>	<p>Geometry M3 Topic B: Volume</p>
	<p>MA.912.GR.4.6</p> <p>Solve mathematical and real-world problems involving the surface area of three-dimensional figures limited to cylinders, pyramids, prisms, cones and spheres.</p>	<p>G6 M5 Topic D: Nets and Surface Area</p> <p>G7 M3 Topic C: Use Equations and Inequalities to Solve Geometry Problems</p> <p>G7 M6 Topic D: Problems Involving Area and Surface Area</p>
	<p>Standard: MA.912.GR.5 Make formal geometric constructions with a variety of tools and methods.</p>	
	<p>MA.912.GR.5.1</p> <p>Construct a copy of a segment or an angle.</p>	<p>Geometry M1 Lesson 3: Copy and Bisect an Angle</p>
	<p>MA.912.GR.5.2</p> <p>Construct the bisector of a segment or an angle, including the perpendicular bisector of a line segment.</p>	<p>Geometry M1 Lesson 3: Copy and Bisect an Angle</p> <p>Geometry M1 Lesson 4: Construct a Perpendicular Bisector</p>

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	<p>MA.912.GR.5.3</p> <p>Construct the inscribed and circumscribed circles of a triangle.</p>	<p>Geometry M5 Lesson 4: Experiments with Inscribed Angles</p> <p>Geometry M5 Lesson 5: Inscribed Angle Theorem and Its Applications</p> <p>Geometry M5 Lesson 6: Unknown Angle Problems with Inscribed Angles in Circles</p>
	<p>MA.912.GR.5.4</p> <p>Construct a regular polygon inscribed in a circle. Regular polygons are limited to triangles, quadrilaterals and hexagons.</p>	<p>Geometry M1 Lesson 1: Construct an Equilateral Triangle</p> <p>Geometry M1 Lesson 2: Construct an Equilateral Triangle</p> <p>Geometry M5 Lesson 3: Rectangles Inscribed in Circles</p> <p>Geometry M5 Lesson 4: Experiments with Inscribed Angles</p> <p>Geometry M5 Lesson 5: Inscribed Angle Theorem and Its Applications</p>
	<p>MA.912.GR.5.5</p> <p>Given a point outside a circle, construct a line tangent to the circle that passes through the given point.</p>	<p>Geometry M5 Lesson 11: Properties of Tangents</p> <p>Geometry M5 Lesson 12: Tangent Segments</p> <p>Geometry M5 Lesson 13: The Inscribed Angle Alternate—A Tangent Angle</p> <p>Geometry M5 Lesson 16: Similar Triangles in Circle-Secant (or Circle-Secant-Tangent) Diagrams</p>

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	<p>Standard: MA.912.GR.6 Use properties and theorems related to circles.</p>	
	<p>MA.912.GR.6.1</p> <p>Solve mathematical and real-world problems involving the length of a secant, tangent, segment or chord in a given circle.</p>	<p>Geometry M5 Lesson 11: Properties of Tangents</p> <p>Geometry M5 Lesson 12: Tangent Segments</p> <p>Geometry M5 Lesson 13: The Inscribed Angle Alternate—A Tangent Angle</p> <p>Geometry M5 Lesson 16: Similar Triangles in Circle-Secant (or Circle-Secant-Tangent) Diagrams</p>
	<p>MA.912.GR.6.2</p> <p>Solve mathematical and real-world problems involving the measures of arcs and related angles, limited to central, inscribed and intersections of a chord, secants or tangents.</p>	<p>Geometry M5 Topic A: Central and Inscribed Angles</p> <p>Geometry M5 Topic B: Arcs and Sectors</p> <p>Geometry M5 Topic C: Secants and Tangents</p>
	<p>MA.912.GR.6.3</p> <p>Solve mathematical problems involving triangles and quadrilaterals inscribed in a circle.</p>	<p>Geometry M5 Topic A: Central and Inscribed Angles</p> <p>Geometry M5 Topic B: Arcs and Sectors</p> <p>Geometry M5 Topic C: Secants and Tangents</p>
	<p>MA.912.GR.6.4</p> <p>Solve mathematical and real-world problems involving the arc length and area of a sector in a given circle.</p>	<p>Geometry M5 Topic B: Arcs and Sectors</p>

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	<p>MA.912.GR.6.5</p> <p>Apply transformations to prove that all circles are similar.</p>	<p>Geometry M2 Lesson 7: How Do Dilations Map Segments?</p> <p>Geometry M2 Lesson 8: How Do Dilations Map Lines, Rays and Circles?</p> <p>Geometry M5 Lesson 9: Arc Length and Areas of Sectors</p>
<p>Standard: MA.912.GR.7 Apply geometric and algebraic representations of conic sections.</p>		
	<p>MA.912.GR.7.1</p> <p>Identify the conic resulting from the cross-section of cones.</p>	<p>Geometry M3 Lesson 7: General Pyramids and Cones and Their Cross-Sections</p> <p>Geometry M3 Lesson 11: The Volume Formula of a Pyramid and Cone</p>
	<p>MA.912.GR.7.2</p> <p>Given a mathematical or real-world context, derive and create the equation of a circle using key features.</p>	<p>Geometry M5 Lesson 17: Writing the Equation for a Circle</p> <p>Geometry M5 Lesson 18: Recognizing Equations of Circles</p>
	<p>MA.912.GR.7.3</p> <p>Graph and solve mathematical and real-world problems that are modeled with an equation of a circle. Determine and interpret key features in terms of the context.</p>	<p>Geometry M5 Lesson 17: Writing the Equation for a Circle</p> <p>Geometry M5 Lesson 18: Recognizing Equations of Circles</p>

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	<p>MA.912.GR.7.4</p> <p>Given a mathematical or real-world context, derive and create the equation of a parabola using key features.</p>	<p>Algebra II M1 Lesson 33: The Definition of a Parabola</p> <p>Algebra II M1 Lesson 34: Are All Parabolas Congruent?</p> <p>Algebra II M1 Lesson 35: Are All Parabolas Similar?</p>
	<p>MA.912.GR.7.5</p> <p>Graph and solve mathematical and real-world problems that are modeled with an equation of a parabola. Determine and interpret key features in terms of the context.</p>	<p>Algebra II M1 Lesson 33: The Definition of a Parabola</p> <p>Algebra II M1 Lesson 34: Are All Parabolas Congruent?</p> <p>Algebra II M1 Lesson 35: Are All Parabolas Similar?</p>
	<p>MA.912.GR.7.6</p> <p>Given a mathematical or real-world context, derive and create the equation of an ellipse using key features.</p>	<p>Precalculus M3 Lesson 6: Curves in the Complex Plane</p> <p>Precalculus M3 Lesson 7: Curves from Geometry</p>
	<p>MA.912.GR.7.7</p> <p>Graph and solve mathematical and real-world problems that are modeled with an equation of an ellipse. Determine and interpret key features in terms of the context.</p>	<p>Precalculus M3 Lesson 6: Curves in the Complex Plane</p> <p>Precalculus M3 Lesson 7: Curves from Geometry</p>

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	<p>MA.912.GR.7.8</p> <p>Given a mathematical or real-world context, derive and create the equation of a hyperbola using key features.</p>	Precalculus M3 Lesson 8: Curves from Geometry
	<p>MA.912.GR.7.9</p> <p>Graph and solve mathematical and real-world problems that are modeled with an equation of a hyperbola. Determine and interpret key features in terms of the context.</p>	Precalculus M3 Lesson 8: Curves from Geometry